

A Study On Water Pollution With A Reference Of The Ganga River

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ABSTRACT

The Ganga river is an ancient river of India. Its water is supposed to be pure as it has been scientifically proved that the water of the Ganga river can't be contaminated after so much long time. On the other hand, if we store water from any other river or lake then that water would be contaminated after few days. Hence, the Ganga river is termed as the holy river of India. But, from past few years, it is observed that the water of this river is being polluted by the human resources.

A number of industries have been set-up along the banks of this river and as a result, a huge amount of waste products is mixed into the water of this river and water gets polluted. This trend of water pollution in the Ganga river is increasing year by year. Although, Indian government has started working on minimizing the level of water pollution in the Ganga river but it seems that it would take few more years to clean this river as the area of this river is very huge as it covers

a number of states. The current paper highlights the problem of water pollution in the Ganga river.

KEYWORDS:

Ganga, River, Water, Pollution

INTRODUCTION

There are a number of factors which are responsible for increasing level of water pollution in the Ganga river. Industrialization is one of the main reason for water pollution in the Ganga river. The Ganga emerges from Uttrakhand and covering the states Uttar Pradesh, Bihar and West Bengal; it falls into the Bay of Bengal.

Many industries are set-up near the Ganga river in all these states. These industries include Chemical, Manufacturing, Food Processing etc. From these industries, a huge quantity of waste products is exerted and all of these waste products are thrown into the water of the Ganga river which is causing upper level of water pollution in this river.

Among these waste products, there are some chemical particles as well which are also harmful for the living organisms of this river. According to a report, a number of fishes in the state of West Bengal are died due to the occurrence of the chemical waste products in the Ganga river. Hence, all the industries near the Ganga river are told by

the Government authorities to throw industrial waste products any other place of the city besides the Ganga river as it is damaging the water of this river on the larger scale.

Another major cause of water pollution in the Ganga river is the increasing level of population density. Due to increase in the level of population in the states from where the Ganga river passes, the water of this river is getting contaminated by the people living near this river. Most of these people are used to take bath, clean their clothes and bath their animals in this river. Therefore, the level of water pollution is getting upper and upper over the years. By identifying the situation, the Government has started taking actions on those people who tend to wash their clothes and bath their animals in this river.

According to a report, it is revealed that the waste products from a number of cities along this river is mixed into the water of this river through gutters which is also a big reason for the contamination of this holy river. As an action, the government authorities are working on closing the gutters which are directly linked with the Ganga river so that the holiness of this river can be maintained.

Through all the above points, it can be said that we, people are directly responsible for the increasing level of water pollution in the Ganga river as for the sake of more and more development, we forget to preserve our natural resources and hence, as a result, the ancient rivers like the Ganga, are getting polluted.

It is alright that Indian government is taking appropriate actions in cleaning this holy river. But, as a citizen of this great country, it is also our duty not to pollute this river as the government alone can't accomplish this huge task of cleaning this holy river without the contribution of the people of this country.

WATER POLLUTION IN GANGA RIVER

Water pollution of rivers in India has now been reaching to a point of predicament due to unplanned urbanization and rapid growth of industrialization. Various fragmented studies concerning the water quality of Ganga River are available, but complete middle stretch data are not available which is most important for fisheries and human life. Record and assessment of the present research work is necessary to formulate up to date decisions about management of the river habitat and fishery to help of restoration and conservation of flora and fauna. The Ganga river quality is day by day deceased due to domestic and industrial influent. The Ganga River is a backbone of Indian biodiversity (aquatic flora and fauna). Pollution threatens not only humans, but also more than 130 fish species, 83 amphibian species and the endangered Ganga river dolphin. But, current time poor water quality of the Ganga River provides shelter to some exotic aquatic organisms.

The contamination of fresh waters through ample variety of pollutants has become a matter of great concern over the last two decades especially inland water. The contamination level in the water bodies is changes according to season and. The concentrations of pollutants in water samples only indicate the condition at the time of sampling. Due to industrialization, the number of factories and population has increased rapidly. The river systems may be greatly infected with pollutants released from industrial, domestic, mining and agricultural effluents.

Discharge of pollutants into rivers or any aquatic environment can change aquatic species diversity, abundance and ecosystems, due to their toxicity and accumulative behavior. Over the last two decades huge scale usage of chemicals in various human activities has grown very rapidly. In developing and underdeveloped countries, the industrial and domestic effluents are release directly or indirectly into the large water bodies.

According to various studies, few main reason for Ganga pollution:

- According to the CPCB, domestic sewage is the major cause of contamination in the river. 2,723 million litre a day (MLD) of sewage is generated by 50 cities located along the river, which adds up to over 85 per cent of the river's pollution load. The key problem comes from the main cities on the Ganga.

- Sewage waste mismanagement alone accounts for 80% of pollution in the Ganga River.
- In Haridwar, 89 million liters of sewage dumped into Ganga daily.
- Approximately 3 billion(3 arab) litres of raw, untreated sewage are dumped in the river on a daily basis. The amount has more than doubled in the last 20 years and experts predict another 100% increase in the following 20 years.
- The leather industries in kanpur use vast amounts of chromium and other toxins and chemicals. Chromium pollutes the Ganges turning it toxic and poisonous.
- The cluster of polluting industries in Kashipur and Moradabad discharge their effluent in river Ramganga and that of Meerut and Modinagar in river Kali. The rivers (Yamuna, kaali, RamGanga) which merge with the Ganga also add pollutants to it. So to clean Ganga it is necessary to clean these merging rivers also.
- Countless tanneries, chemical plants, textile mills, distilleries, slaughterhouses, and hospitals contribute to the pollution of the Ganges by dumping untreated waste into it. Industrial effluents are about 12% of the total volume of effluent reaching the Ganges.
- Dams are also one of the main cause of pollution in the Ganga. Dams obstruct the flow of river and make it slow due to which Ganga lacks in self purification capacity.

- Tons of plastic, polythene and other trash are thrown into the Ganga River, choking out life from Her waters and blocking existing sewerage systems.

Because of India's lax environmental regulations, industries along the river release chemicals and other poisonous material into the Ganges. In some places they are a thousand times over the allowed limit. Especially India's traditional leather industry needs great amounts of water. In addition, fertilizers from the fields find their way into the ground water and ultimately flow into the river. Altogether, the amount of industrial pollution has doubled in the past 20 years.

This widespread pollution of the Ganges River has also led to major health problems. Many diseases are common, including cholera, hepatitis and diarrhea.

DISCUSSION

While India's population keeps growing, more and more people are leaving the countryside and moving to big cities along the Ganges. As a result, the river will not be able to cope with even more people.

Life in the river is also at risk. Recent reports have shown that there is a high level of mercury in some fish. The construction of dams is destroying forests and vegetation, killing off many animal and plants.

Indian authorities are fighting an upward battle towards cleaning up the Ganges River. International organizations have offered help. The World Bank has agreed to give India a loan of up to a billion dollars to clean up the Ganges River.

In the recent past, due to rapid progress in communications and commerce, there has been a swift increase in the urban areas along the river Ganga. As a result the river is no longer only a source of water but is also a channel, receiving and transporting urban wastes away from the towns. Today, one third of the country's urban population lives in the towns of the Ganga basin. Out of the 2,300 towns in the country, 692 are located in this basin, and of these, 100 are located along the river bank itself.

The belief the Ganga river is "holy" has not, however, prevented over-use, abuse and pollution of the river. All the towns along its length contribute to the pollution load. It has been assessed that more than 80 per cent of the total pollution load (in terms of organic pollution expressed as biochemical oxygen demand (BOD)) arises from domestic sources, i.e. from the settlements along the river course. Due to over-abstraction of water for irrigation in the upper regions of the river, the dry weather flow has been reduced to a trickle. Rampant deforestation in the last few decades, resulting in topsoil erosion in the catchment area, has increased silt deposits which, in turn, raise the river bed and lead to devastating floods in the rainy season and stagnant flow

in the dry season. Along the main river course there are 25 towns with a population of more than 100,000 and about another 23 towns with populations above 50,000. In addition there are 50 smaller towns with populations above 20,000. There are also about 100 identified major industries located directly on the river, of which 68 are considered as grossly polluting. Fifty-five of these industrial units have complied with the regulations and installed effluent treatment plants (ETPs) and legal proceedings are in progress for the remaining units. The natural assimilative capacity of the river is severely stressed.

Because the river is so polluted, when the water recedes during a drop in water levels, decomposed skeletons and half-burnt bodies were found in the river. The water is also used for swimming, bathing and sometimes drinking. And a river this polluted can never really be cleaned fully. It is such a staple in the Hindu religion and holds such a significance that people will not stop laying to rest their loved ones in it or stop bathing in it. There will always be people polluting this river.

CONCLUSION

The Ganges River is also a huge source of disease. It accounts for 9 to 12% of disease in Uttar Pradesh (U.P.). This is a significant amount of disease that the pollution in the river causes. Causes of pollution in the river include human and industrial waste and religious factors. All

of this contributes to disease and pollution. Because it is so polluted, the river has great negative effects on the people and environment of India. Marine life is dying, dams are causing floods and killing biological life and there is an a high incidence of disease.

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